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VISTEON  
C/O BRINKS HOFER GILSON & LIONE  
PO BOX 10395  
CHICAGO, IL 60610

EXAMINER

JORGENSEN, LELAND R

ART UNIT PAPER NUMBER

2675

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

*Ym*

**Office Action Summary**

Application No.

09/823,587

Applicant(s)

SHAH, SACHIN V.

Examiner

Leland R. Jorgensen

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2 - 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2 - 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 2 – 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malone et al., USPN 6,663,155 B1, in view of Chang, USPN 6,409,242 B1.

#### **Claim 2**

Malone et al., teaches a console lid [pivotal cover 30] positioned over a console [10] for pivotal movement relative thereto. The console lid has a bottom side [underside] and the console has a storage bin [storage chamber 18]. A display screen mounted in a movable frame [video display unit 12] is pivotally attached to the console lid. Malone, col. 6, lines 27 – 43; and figures 1 – 3. Although Malone describes the video display unit 12 as a single unit, examination of Malone figures 2 and 3 shows that the video display unit 12 consists of a display screen mounted in a frame and that the display screen and the frame move as a unit via the console lid.

Malone, however, does not teach that said console lid has an interior compartment and that the display screen and movable frame is pivotally positioned within said interior compartment of said lid, wherein said movable frame can pivot between at least an open position and a closed position relative to said lid, wherein when said movable frame is in said closed position, said screen is inaccessible.

Chang teaches a housing 24 having an interior compartment [recess 46]. A display screen 50 mounted in a movable frame [video display 22] is positioned within the interior

Art Unit: 2675

compartment of the housing. Chang, col. 3, lines 3 – 22, 47 – 53; and figure 2. The display screen mounted in a movable frame is pivotally positioned within the interior compartment of the housing, wherein the movable frame can pivot between at least an open position and a closed position relative to the housing, wherein when the movable frame is in the closed position, the screen is inaccessible. Chang, col. 3, lines 54 – 64; and figures 2, 5, and 9.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the housing having an interior compartment with the display screen mounted in a movable frame pivotally positioned within said interior compartment as taught by Chang with the console lid mounted screen as taught by Malone. Specifically, it would have been obvious to one of ordinary skill in the art at the time of the invention to invert the housing 24 to form the console lid [pivotal cover 30] to protect the screen from damage when the screen was in the stored position. Chang invites such combination by teaching,

When the display is in the storage position, the display screen desirably faces, and is safely enclosed by, the housing. The display screen is protected from damage in this position, and passengers are protected from broken pieces of the display screen as might result from a vehicle collision.

Chang, col. 2, lines 29 – 33. See also, Chang, col. 3, lines 60 – 65.

### **Claim 3**

Malone teaches that the lid can pivot between an open position and a closed position, wherein when the lid is in the open position, the storage bin of the console is accessible.

Malone, figures 1 - 3.

### **Claim 4**

Chang shows the bottom side of the interior compartment is comprised of a substantially rigid material. Chang, figures 2 and 5.

**Claim 5**

Chang teaches that when the frame is in the closed position, the screen is hidden from view and the lid has a substantially flat profile. Chang, col. 3, line 54 – col. 3, line 12; and figures 2 and 5.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Malone et al. in view of Chang as applied to claim 2 above, and further in view of Zaidan, USPN 5,494,447.

**Claim 6**

Malone and Chang teach self-tensioning hinges but do not specifically describe such hinges as pinions.

Zaidan teaches the use of a pinion to help a display part 12 to remain stationary at any angle relative to a base part 14. Zaidan, col. 5, lines 23 – 27; col. 12, lines 4 – 8; and figure 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the pinion as taught by Zaidan with the console lid mounted screen as taught by Chang to allow the user to freely move the display into the desired position while holding the display in the position without slippage.

4. Claims 7 - 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Zaidan, USPN 5,494,447.

**Claim 7**

Chang teaches a frame [video display 22] pivotally attached to a console lid [housing 24]. The console lid has a compartment [recess 46] defined therein to receive said frame. The

Art Unit: 2675

compartment has a bottom side [formed by vehicle roof 26] having a substantially rigid surface.

A display screen [screen 50] is defined within said frame. The frame is rotatable around a single axis to at least an open position [viewing position] and a closed position [storage position].

Chang, col. 3, lines 15 – 22, 47 – 53; and figures 1 & 2. The display screen is inaccessible when said frame is in said closed position. Chang, col. 3, lines 54 – 65; and figure 5.

Chang teaches self-tensioning hinges but does not describe such hinges as pinions.

Zaidan teaches the use of a pinion to hold a display part 12 stationary at any angle relative to a base part 14. Zaidan, col. 5, lines 23 – 27; col. 12, lines 4 – 8; and figure 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the pinion as taught by Zaidan with the pivotal display as taught by Chang to allow the user to freely move the display into the desired position while holding the display in the position without slippage. Zaidan invites such combination by teaching,

This invention relates to hinges for electronic devices, particularly hinge assemblies for electronic devices having two or more device parts that interconnect and stably support the device parts while providing enhanced adjustability in the three-dimensional positioning of each device part relative to the other device parts, so as to enhance comfort, efficiency and effectiveness in using the electronic device.

Two-part electronic devices are common. They include personal computers of various categories such as desk-top, laptop, notebook, and palm-top computers, as well as pen-based tablet computers. Two-part electronic devices also include personal organizers and other electronic devices.

For two-part electronic devices, one device part typically is a video display. For example, portable computers typically have a flat panel display screen (the "display part"), e.g., an LCD or gas plasma display. The second device part typically is a base that holds, among other things, the bulk of the device's electronic hardware, such as disk drives (the "base part"). In portable computers, the base part also commonly holds a keyboard that may or may not be detachable from the base part. Broadly, the display and base parts can be described as

Art Unit: 2675

typically being, in shape, rectangular prisms, having outside and inside surfaces and right, left, front and back sides.

In using two-part electronic devices, it is generally desirable to be able to adjust the relative positions of the two device parts through three dimensions substantially without restriction, while stably supporting both parts. For example, in portable computers the user may desire to adjust the vertical viewing angle of the display by rotating the display part horizontally relative to the base part. The user may desire to swivel the display part relative to the base part in order to allow a second person to view the display while not encumbering the user's access to the keyboard. The user may desire to position the display a shorter or longer distance from the user's eyes, with or without adjusting the viewing angle or the position of the keyboard. The user may desire to place the display part flat against the base part with the display exposed and the keyboard either (i) covered by the display part, for example, when input is to be pen-based, or (ii) uncovered by the display part, for example, when using the device's keyboard in conjunction with an external monitor rather than the integral display. Moreover, the user may desire to adjust the relative positions of the two device parts in these and other ways in sequence or in combination, depending on the type of electronic device and the nature of its use.

Zaidan, col. 1, lines 9 – 57. Zaidan adds,

The present invention fulfills the need for an improved hinge mechanism for electronic devices, overcomes the shortcomings of prior art hinge mechanisms and provides certain advantages not heretofore available in such mechanisms, by providing a hinge assembly that interconnects and stably supports one device part relative to another while enhancing the three-dimensional adjustability of the position of each device part relative to one or more other device parts.

Zaidan, col. 2, lines 55 – 62.

### **Claim 8**

Zaidan teaches the use of a pinion to help a display part 12 remain stationary at any angle relative to a base part 14. Zaidan, col. 5, lines 23 – 27; col. 12, lines 4 – 8; and figure 1.

**Claim 9**

Chang teaches that the frame has a closed position [storage position] wherein said frame forms a substantially flat surface with said console lid and said screen is hidden from view.

Chang, col. 3, lines 54 – 65; and figure 5.

**Claim 12**

Zaidan teaches that two friction pinions define on opposite sides of said frame. Zaidan, col. 6, lines 1 – 6.

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Zaidan as applied to claims 7 and 9 above, and further in view of Malone.

**Claims 10 and 11**

Neither Chang nor Zaidan specifically teach that the console lid [housing ] has a hinge providing a pivotable connection to a console and where the console lid has an open and closed position.

Malone teaches that the console lid [pivotal cover 30] [housing ] having a pivotable connection to a console [10] and where the console lid has an open and closed position. Malone, col. 6, lines 27 – 43; and figures 1 – 3. It is inherent that such pivotable connection is provided by a hinge.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the console as taught by Malone with the console lid mounted screen as taught by Chang and Zaidan. Malone invites such combination by teaching,

In all of the above-described embodiments, the mounting of the video display unit 12 within the console 10 accomplishes several important objectives.



Art Unit: 2675

First, the higher manufacturing cost and complexities of mounting the video display unit 12 to an overhead console are eliminated by storing the video display unit within a seat-level console. The video display unit 12 is vertically adjustable with respect to the console 10 as well as adjustable within several degrees of freedom via various pivot joints so that users located in front and rear seats of all ages and sizes can position the video display unit for optimum viewing.

Malone, col. 13, line 33 – col. 14, line 2.

### ***Response to Arguments***

6. Applicant's arguments, see Remarks/Arguments/Interview Summary, filed August 11, 2004, with respect to the rejection(s) of claim(s) 2 - 5 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Malone in view of Chang.

Applicant's arguments with respect to claims 7 - 11 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kitano et al., USPN 6,724,317 B1, and Delphi Automotive Systems, Communiport® Seat-Top Seat Entertainment System, Users Guide, 4/6/01, each teach consoles with display screens.

Art Unit: 2675

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leland R. Jorgensen whose telephone number is 703-305-2650. The examiner can normally be reached on Monday through Friday, 7:00 a.m. through 3:30 p.m..

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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DENNIS-DOON CHOW  
PRIMARY EXAMINER